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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,047	08/30/2001	Miguel-Angel Garcia-Martin	027566-029	7797

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EXAMINER	
LE, VIET Q	

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/857,047	GARCIA-MARTIN ET AL.	
	Examiner	Art Unit	
	Viet Q. Le	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *05/31/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

2. The disclosure is objected to because of the following informalities:

a. The title of the application shall not appear in the specification section.

b. "Signaling point 1" was referred on page 6, line 14 of the specification. However, there is no labeling for box 1 of figure 2.

c. "Signaling point 2" was referred on page 6, line 16 of the specification. However, there is no labeling for box 2 of figure 2.

d. "MSC 1" was referred on page 6, line 17 of the specification. However, there is no labeling for box 1 of figure 2.

e. "VLR 2" was referred on page 6, line 20 of the specification. However, there is no labeling for box 2 of figure 2.

f. "VLR 1" was referred on page 6, line 22 of the specification. However, there is no labeling for box 1 of figure 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 8, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Roch Glitho (U.S. 6,178,181), hereinafter referred to as Glitho.

Regarding claim 1, Glitho disclosed a method of transmitting signaling information in a telecommunications network between peer user / application parts, the method (Glitho disclosed a mapping function and method for mapping a SS7 message from a SCCP protocol layer to an IP layer in order to transmit the SS7 signaling messages over an IP data network from an originating node to a destination node. See figure 5; See also column 5, lines 45-64) comprising: transferring signaling information from a first user / application part to a Message Transfer Part (MTP) level 3 (SS7 signaling messages are flowing between the SCCP layer and the MTTP 3 or SCCP-IP layer. See figure 2, block 3; See figure 3, block 3), the information including a destination signaling point identifier identifying the signaling point at which the peer user/application part is located (See column 4, lines 28-33); determining at the MTP level 3, from said destination signaling point identifier, a destination address suitable for

conveying the signaling information to the destination signaling point or to an intermediate signaling point en route to the destination signaling point (The SCCP-IP function acts like the MTTP-3 layer to determine the routing and switching functionalities based on signaling point identifier. See column 3, lines 65-67; See column 4, lines 1-8); and, in the event that said destination address is an Internet Protocol (IP) address and port number, transferring the signaling information and the determined IP address and port number to an IP part for transmission over an IP network to the destination or intermediate signaling point (Based on the SS7 messages converted to IP addresses, messages will be transmitted to their destinations accordingly (See column 4, lines 28-33).

Regarding claim 2, Glitho disclosed a method comprising transferring the signaling information to an MTP level 2 in the event that the destination address determined by the MTP level 3 is a signaling link, and transmitting the information to the destination signaling point, or to an intermediate signaling point, over the signaling link (Traditional SS7 message transport is to deliver SS7 messages to layer 2 or MTP level 2 for further processing if MTP level 3 determine to forward these SS7 content to MTP level 2. See figure 2; See also column 3, lines 41-56).

Regarding claim 3, Glitho disclosed a method comprising: receiving the signaling information transmitted over the IP network at the signaling point identified by said IP address and port number (Glitho disclosed a mapping function and method for mapping a SS7 message from a SCCP protocol layer to an IP layer in order to transmit or receive SS7 signaling messages over an IP data network from an originating node to a

destination node and vice versa. See figure 5; See also column 5, lines 45-64), and passing the signaling information to an MTP level 3 and determining whether or not the signaling point is the destination signaling point on the basis of said destination signaling point identifier included in the signaling information (The SCCP-IP function layer act like the MTP level 3 and will determine the right destination address based on the look up table. See column 3, lines 65-67; See also column 4, lines 1-20).

Regarding claim 4, Glitho disclosed a method comprising passing the signaling information to the peer user/application part in the event that the receiving signaling point is the destination signaling point (The protocol is the OSI based stack protocol and appropriate layer to corresponding layer communication must follow. See figure 3).

Regarding claim 5, Glitho disclosed a method comprising determining at the MTP level 3 a further destination address, on the basis of the destination signaling point identifier, suitable for conveying the signaling information to the destination signaling point or to another intermediate signaling point, if the receiving signaling point is not the destination signaling point (The protocol is the OSI based stack protocol and appropriate layer to corresponding layer communication must follow. Ultimately, MTP level 3 will be able to determine based on received address if the reached destination is an ultimate destination address or not. See figure 3).

Regarding claim 6, Glitho disclosed a method comprising providing a look-up table at a transmitting signaling point, which table maps signaling point identifiers to IP addresses and port numbers or to signaling links (Address mapping table is provided between SS7 addresses and IP addresses. See figure 4, block 41).

Regarding claim 7, Glitho disclosed a method comprising providing an adaptation level between the MTP level 3 and the IP part at the originating signaling point, as well as at intermediate and destination signaling points, the adaptation layer listening to a predetermined port number to receive and process incoming TCP connections or UDP packets and providing an interface between the MTP level 3 and TCP/UDP levels (See figure 3, block 3; See also column 3, lines 65-67; See also column 4, lines 1-19).

Regarding claim 8, Glitho disclosed a method, wherein the adaptation layer monitors the availability of MTP 3 levels at remote signaling points and reports network events to the associated MTP 3 level (The SCCP-IP layer acts as the MTTP layer 3 and the adaptation layer as described by the applicant. The SCCP-IP utilizes the MTP status primitive indicator to determine if a message can be delivered to its destination or not. This indicator can determine the availability of its remote MTP layer equivalent. See column 5, lines 6-9).

Regarding claim 11, Glitho disclosed an apparatus for transmitting signaling information in a telecommunications network between peer user/application parts (Glitho disclosed a mapping function and method for mapping a SS7 message from a SCCP protocol layer to an IP layer in order to transmit the SS7 signaling messages over an IP data network from an originating node to a destination node. See figure 5; See also column 5, lines 45-64), the apparatus comprising:

First processing means implementing a Message Transfer Part (MTP) level 3 for receiving signaling information from a first user / application part (SS7 signaling messages are flowing between the SCCP layer and the MTTP 3 or SCCP-IP layer. See

figure 2, block 3; See figure 3, block 3), the information including a destination signaling point identifier identifying the signaling point at which the peer user / application part is located (See column 4, lines 28-33), the MTP level 3 determining from said destination signaling point identifier, a destination address suitable for conveying the signaling information to the destination signaling point or to an intermediate signaling point en route to the destination signaling point (The SCCP-IP function acts like the MTTP-3 layer to determine the routing and switching functionalities based on signaling point identifier. See column 3, lines 65-67; See column 4, lines 1-8) and,

Second processing means implementing an IP part for transmitting the signaling information and the determined IP address and port number over an IP network to the destination or intermediate signaling point, in the event that said destination address is an IP address and port number (Based on the SS7 messages converted to IP addresses, messages will be transmitted to their destinations accordingly. See column 4, lines 28-33).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 9 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glitho in view of the admitted prior art in the applicant's instant application, hereinafter referred to as Martin.

Regarding claim 9, Glitho disclosed a method of transmitting signaling information in a telecommunications network between peer user / application parts, the method (Glitho disclosed a mapping function and method for mapping a SS7 message from a SCCP protocol layer to an IP layer in order to transmit the SS7 signaling messages over an IP data network from an originating node to a destination node. See figure 5; See also column 5, lines 45-64) comprising: transferring signaling information from a first user / application part to a Message Transfer Part (MTP) level 3 (SS7 signaling messages are flowing between the SCCP layer and the MTTP 3 or SCCP-IP layer. See figure 2, block 3; See figure 3, block 3), the information including a destination signaling point identifier identifying the signaling point at which the peer user/application part is located (See column 4, lines 28-33); determining at the MTP level 3, from said destination signaling point identifier, a destination address suitable for conveying the signaling information to the destination signaling point or to an intermediate signaling point en route to the destination signaling point (The SCCP-IP function acts like the MTTP-3 layer to determine the routing and switching functionalities. See column 3, lines 65-67; See column 4, lines 1-8); and, in the event that said destination address is an Internet Protocol (IP) address and port number, transferring the signaling information and the determined IP address and port number to an IP part for transmission over an IP network to the destination or intermediate

signaling point (Based on the SS7 messages converted to IP addresses, messages will be transmitted to their destinations accordingly (See column 4, lines 28-33).

Glitho, however, fails to disclose that the signaling point identifier comprises a Network Indicator (NI) and a Signaling Point Code (SPC), where the NI identifies a network and the SPC identifies a signaling point within that network.

Martin admitted in the background art of his instant application that the signaling point identifier would comprise of a Network Indicator (NI) and a Signaling Point Code (SPC), where the NI identifies a network and the SPC identifies a signaling point within that network (See page 2, lines 27-28).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further define the signaling point identifier to include a network Indicator (NI) and a signaling Point Code (SPC), the motivation being that by including these information into the signaling point identifier, one would comply to the European standard.

Regarding claim 10, Glitho, however, fails to disclose the signaling point identifier has a Network Indicator plus "Network identifier - Network Cluster - Network Cluster Member" format.

Martin admitted in his instant application that the signaling point identifier would have a Network Indicator plus "Network identifier - Network Cluster - Network Cluster Member" format (See page 5, lines 13-15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further define the signaling point identifier would have a Network

Indicator plus "Network identifier - Network Cluster - Network Cluster Member" format, the motivation being that by complying to this format, one would comply to the US standard.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Magnus Lindgren et al. (U.S. 6,411,632), Network hub for interconnecting a wireless office environment with a public cellular telephone network.

b) Paul Andrew Miller et al. (U.S. 6,324,183), Systems and methods for communicating messages among signaling system 7 (SS7) signaling points (SPS) and Internet protocol (IP) nodes using signal transfer points (STPS).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Le whose telephone number is 571-272-2246. The examiner can normally be reached on 8 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

vl

RICKY NGO
PRIMARY EXAMINER